

Patent Claims:

1. Method for the pressure modulation of brake pressures with an electric pressure fluid pump in a dual-circuit brake pressure transmission device, with the steps introduction of a brake pressure into the one and/or the other wheel brake circuit of the one brake pressure transmission circuit, maintaining the brake pressure in the one and/or the other wheel brake circuit of the one brake pressure transmission circuit, and discharge of the brake pressure into the one and/or the other wheel brake circuit of the one brake pressure transmission circuit, characterized in that a split-up of the wheel brake circuits (26, 27) of the one brake pressure transmission circuit into a leading and a following wheel brake circuit with different brake pressure demands is provided, in that the leading wheel brake circuit (26 or 27) is defined as wheel brake circuit with a higher brake pressure demand, and in that the steps introduction, maintaining, and reduction of the brake pressure of the following wheel brake circuit are controlled or regulated by way of the leading wheel brake circuit.
2. Method as claimed in claim 1, characterized in that the leading wheel brake circuit (26 or 27) of the wheel brake (10 or 11) is connected to a pressure fluid source (4) by way of opening of a switch valve (31), and the pressure fluid is introduced into the leading and following wheel brake circuits by way of the pressure fluid pump (16) arranged in the wheel brake circuit, with the brake pressure circuit (8, 9) being separated from the pressure fluid source by a separating valve (6).

3. Method as claimed in claim 1 or 2,
c h a r a c t e r i z e d in that the leading wheel brake circuit (26 or 27) of the wheel brake is connected to a pressure fluid accumulator (20), with switch valve (31) closed, and the pressure fluid is introduced into the leading and following wheel brake circuits by way of the pressure fluid pump (16) arranged in the wheel brake circuit, with brake pressure circuit (8, 9) being separated from a pressure fluid source (4) by a separating valve (6).
4. Method as claimed in any one of the claims 1 to 3,
c h a r a c t e r i z e d in that one inlet valve and one outlet valve (12, 19, 14, 17) is provided in each wheel brake circuit, and the brake pressure demand of the leading and following wheel brake circuits is controlled by way of the inlet valve (19) of the following wheel brake circuit and the pressure fluid supplied by the pressure fluid pump (16) according to the brake pressure demand, with the inlet valve (12) of the leading wheel brake circuit being open, and the outlet valves (14, 17) of the leading and following wheel brake circuit being closed.
5. Method as claimed in any one of claims 1 to 4,
c h a r a c t e r i z e d in that the brake pressure demand of the following wheel brake circuit is changed by delivery out of the leading wheel brake circuit, with the inlet valve (12 or 19) of the following wheel brake circuit open and with an active or passive pressure fluid pump.
6. Method as claimed in any one of claims 1 to 5,
c h a r a c t e r i z e d in that the brake pressure of the wheel brake circuits is maintained, with the switch

valve, separating valve and outlet valve closed, and the inlet valve (12 or 19) of the leading wheel brake circuit open, and the outlet and inlet valve of the following wheel brake circuit closed.

7. Method as claimed in any one of claims 1 to 6, characterized in that when the brake pressure introduced is increased compared to the brake pressure demand, the inlet valve of the leading wheel brake circuit is closed in dependence on the brake pressure in the wheel brake circuit or in dependence on a time constant correlated to a condition variable.
8. Method as claimed in any one of claims 1 to 7, characterized in that the brake pressure in the leading wheel brake circuit is discharged into the pressure fluid source (4) by way of the brake pressure circuit by opening the separating valve (6), with the switch and outlet valve closed and the inlet valve (12) open.
9. Method as claimed in any one of claims 1 to 8, characterized in that the brake pressure in the following wheel brake circuit is discharged through a return line (33, 15) into the pressure fluid accumulator (20) by opening the outlet valve (18) when the inlet valve (19) is closed, with the switch valve and/or separating valve in the leading wheel brake circuit being closed or open in dependence on the steps introduction, or maintaining, or reduction of the brake pressures.
10. Method as claimed in any one of claims 1 to 9, characterized in that the characteristics for the steps introduction, maintaining, and reduction of the

brake pressure are predetermined by a pressure controller (28).

11. Method as claimed in any one of claims 1 to 10, characterized in that the pressure fluid pump (16) is controlled by way of gradual quantities predetermined by the pressure controller during the introduction of the brake pressure into the leading and following wheel brake circuits.
12. Method as claimed in any one of claims 1 to 11, characterized in that the pressure fluid pump (16) is operated during the steps maintaining and reduction of the brake pressures by way of adjusting the energy supply, and/or the rotational speed, and/or the conveying capacity in a predetermined basic (load) condition, preferably with lowest energy supply, rotational speed, and/or conveying capacity.

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